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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,054	06/15/1999	DAVID W. JOHNSON	11381	4885

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EXAMINER

RAYFORD, SANDRA M

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/334,054

Applicant(s)

JOHNSON, DAVID W.

Examiner

Sandra M. Nolan-Rayford

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19,21,22 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12,13,21 and 36 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 6-9,11,33,34 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

S.M. Nolan-Rayford 6-25-05

DETAILED ACTION

Claims

1. Claims 1-19, 21-22 and 31-37 are pending.

Claims 20 and 23-30 have been cancelled.

Finality Withdrawn/ Prosecution Reopened

2. The finality of the 21 March 2005 office action is withdrawn and prosecution is reopened in order to apply the new grounds of rejection set out below.

Withdrawal of Allowability

3. The allowability of claims 1-5 and 10, 14-19, 22, 31-33, and 35 is withdrawn in order to apply the new grounds of rejection set out below.

Claims 6-9, 11, 34 and 37 remain allowable.

Withdrawal of Rejection

4. The 35 USC 103 rejection of claims 12-13, 21 and 36 over Misch et al (US 3,637,416) in view of JP 021627A, as discussed in section 5 of the 21 March 2005 office action, is withdrawn.

Summary of Base Claims

5. The base, or independent, claims are claims 1, 12, 13, 14 and 31. They can be summarized as follows:

Claim 1 covers a surface-modified glove comprising:

-an elastomeric matrix shaped as a glove, the matrix having an inside surface that contacts a human hand and an outside surface, and

-a plurality of colloidal silica particles adhered to at least a portion of the outside surface and partially embedded therein without extending through the matrix's thickness.

Art Unit: 1772

Claim 12 covers a surface-modified glove comprising:

- an elastomeric matrix having an outside surface, and
- a plurality of colloidal silica particles adhered to at least a portion of the outside surface and partially embedded therein without extending through the matrix's thickness.

Claim 13 covers a surface-modified glove comprising:

- an elastomeric article having a surface, and
- a plurality of electrically conductive colloidal silica particles adhered to at least a portion of the matrix but not extending through its thickness, the particles being affixed to the surface without any separate binder.

Claim 14 covers a process for making and inverting an elastomeric article comprising the steps:

- providing a mold to define at least part of the surface of the article,
 - making a coating comprising a plurality of colloidal silica particles,
 - applying the coating to a surface of the mold,
 - contacting a flowable elastomer with the coated surface,
 - allowing the elastomer to coalesce against the coated surface to form an article with the silica particles adhered to the elastomer,
- separating the coalesced elastomer from the mold surface so that the elastomer is turned inside out and the silica particles are adhered to the outside surface.

Claim 31 covers a surface-modified glove comprising:

- a glove-shaped elastomeric article having an inside surface for contacting a human hand and an outside surface, and
- a surface treatment adhered to at least a portion of the outside surface of the glove, the surface treatment comprising a plurality of colloidal silica particles adhered to and partially embedded in the outside surface.

Art Unit: 1772

Notes:

A. Claims 1, 12, 13 and 31 relate to gloves with silica particles adhered to at least parts of their surfaces; claim 14 relates to a process for making articles via the steps of coating a mold with a silica-containing coating and inverting the article made on that mold so that the silica is on its outside.

B. Claims 6, 7, 8, 13, 21, 24, 33, 36 and 37 call for the use of conductive materials in the coatings.

C. Claims 11, 12 and 21 call for the absence of a binder in the coating.

D. Claims 9 and 34 call for a layer of aluminum chlorohydrate on the surface of the silica particles in the coatings.

Allowable Subject Matter

6. Claims 12, 13, 21, and 36 allowed. They recite one or more of the features discussed in items B, C and D, above and are not dependent on a rejected claim.

7. Claims 6-9, 11, 33-34 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The examiner has found no applicable prior art that teaches or suggest articles or processes having the conductive (B), no-binder (C) or aluminum chlorohydrate (D) features recited in claims 6-9, 11-13, 21, 24, 34 and 36-37.

New Rejections

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-4, 31 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Green et al (US 5,438,709).

Green teaches elastomeric gloves having a lubricious coatings containing polyvinyl alcohol (PVA) (abstract). The coatings also contain a colloidal suspension of fumed silica in water (col. 5, lines 20-35; col. 6, line 12). The coatings are used as an “overdip” for the gloves (Figure 1; col. 5, line 5).

When making its gloves, Green uses a process in which he inverts them and re-inverts them, so that the coated side is on the outside. See col. 4, lines 39-43.

The phrase “a colloidal suspension of fumed silica” is deemed to read on “colloidal silica”.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1772

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 5 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green in view of Arnold et al (GB 2321902B; abstract only).

Green is discussed above. It fails to teach the use of silica particles of the size claimed.

Arnold teaches fumed silica of 10-20 nm size (third paragraph of basic abstract) used in rubber latexes from which gloves (use section) are made. Films containing this silica have improved tear strength (advantage section).

The references are analogous because both deal with rubber gloves.

It would have been obvious to one having ordinary skill in the art at the time of the invention to employ the silica of Arnold in the gloves of Green in order to improve their tear strength.

The motivation to employ the silica of Arnold in the gloves of Green in order to improve their tear strength is found in the advantage section of the Arnold abstract, where tear strength is discussed.

It is deemed desirable to make gloves that have good tear strength so that they do not tear during use.

Art Unit: 1772

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Green in view of the admission in the sentence bridging pages 1 and 2 of the specification.

Green is discussed above. It fails to teach the use of a treatment on the interior of its gloves.

In the specification, in the last two lines of page 1, applicant has admitted the conventionality of "processing which reduces tackiness on the inside surface of the glove".

The Green patent and the passage are analogous because they both deal with rubber gloves.

It would have been obvious to one having ordinary skill in the art at the time of the invention to employ the conventional processing discussed in the specification to reduce the tackiness on the inside surfaces of the Green gloves.

The motivation to employ the conventional processing discussed in the specification to reduce the tackiness on the inside surfaces of the Green gloves is found in the admission, where reducing tackiness is taught.

It is deemed desirable to make rubber gloves that have reduced tackiness in their inner surfaces in order to make them more readily donnable.

15. Claims 14-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green.

As best understood by the examiner, claims 14-19 and 22 call for a method "comprising" the steps recited in claim 14.

Art Unit: 1772

Green is discussed above. Note its discussion of two inversions at col. 4, lines 39-43. Since its two-inversion process includes the steps recited in claim 14, that claim and those dependent from it are deemed obvious.

It is well known in the art that the sequence of dipping and inverting steps depends upon which coatings/layers one wants nearest the inner and outer surfaces of the final gloves.

In the absence of convincing objective evidence to the contrary, it is deemed an obvious matter of design/engineering choice to position latex and silica-containing coatings/layers of Green wherever one prefers them.

Response to Arguments

16. Applicant's arguments with respect to claims 1-4, 5, 14-19, 22, 31-32, and 35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication should be addressed to Sandra M. Nolan-Rayford, at telephone number 571/272-1495. She can be reached Monday through Thursday, from 6:30 am to 4:00 pm, ET. If attempts to reach the examiner are unsuccessful, contact her supervisor, Harold Pyon, at 571/272-1498.

The fax number for patent application documents is 703/872-9306.

S. M. Nolan-Rayford
S. M. Nolan-Rayford 6-25-05
Primary Examiner
Technology Center 1700

09334054(20050625)

**SANDRA NOLAN RAYFORD
PRIMARY EXAMINER**